

10/513699

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| NEWS | 1 | | Web Page for STN Seminar Schedule - N. America |
| NEWS | 2 | DEC 01 | ChemPort single article sales feature unavailable |
| NEWS | 3 | APR 03 | CAS coverage of exemplified prophetic substances enhanced |
| NEWS | 4 | APR 07 | STN is raising the limits on saved answers |
| NEWS | 5 | APR 24 | CA/CAPLUS now has more comprehensive patent assignee information |
| NEWS | 6 | APR 26 | USPATFULL and USPAT2 enhanced with patent assignment/reassignment information |
| NEWS | 7 | APR 28 | CAS patent authority coverage expanded |
| NEWS | 8 | APR 28 | ENCOMPLIT/ENCOMPLIT2 search fields enhanced |
| NEWS | 9 | APR 28 | Limits doubled for structure searching in CAS REGISTRY |
| NEWS | 10 | MAY 08 | STN Express, Version 8.4, now available |
| NEWS | 11 | MAY 11 | STN on the Web enhanced |
| NEWS | 12 | MAY 11 | BEILSTEIN substance information now available on STN Easy |
| NEWS | 13 | MAY 14 | DGENE, PCTGEN and USGENE enhanced with increased limits for exact sequence match searches and introduction of free HIT display format |
| NEWS | 14 | MAY 15 | INPADOCDB and INPAFAMDB enhanced with Chinese legal status data |
| NEWS | 15 | MAY 28 | CAS databases on STN enhanced with NANO super role in records back to 1992 |
| NEWS | 16 | JUN 01 | CAS REGISTRY Source of Registration (SR) searching enhanced on STN |
| NEWS | 17 | JUN 26 | NUTRACEUT and PHARMAML no longer updated |
| NEWS | 18 | JUN 29 | IMSCOPROFILE now reloaded monthly |
| NEWS | 19 | JUN 29 | EPFULL adds SLART to AB, MCLM, and TI fields |
| NEWS EXPRESS | MAY 26 09 | | CURRENT WINDOWS VERSION IS V8.4, AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009. |
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<12/04/2007>

Erich Leese

10/513699

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* * * * * STN Columbus * * * * *

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=> file reg

COST IN U.S. DOLLARS

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TOTAL

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0.22

0.22

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STRUCTURE FILE UPDATES: 29 JUN 2009 HIGHEST RN 1160357-19-6

DICTIONARY FILE UPDATES: 29 JUN 2009 HIGHEST RN 1160357-19-6

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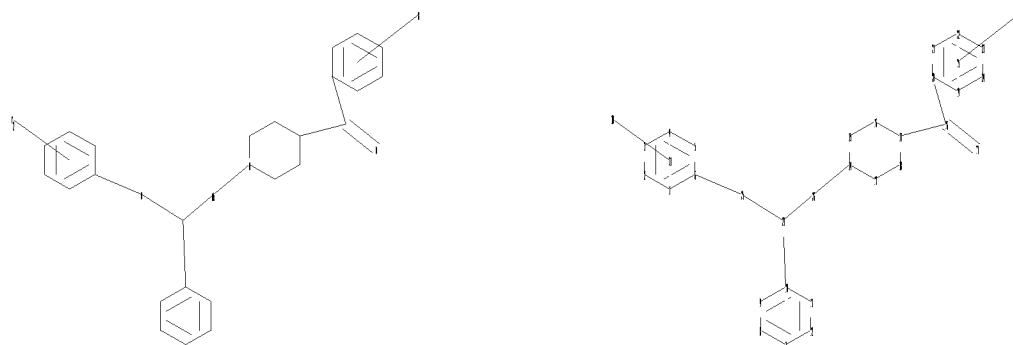
REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10594105carbonyl.str

10/513699



chain nodes :
25 26 27 30 34 36 37
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24
chain bonds :
6-25 10-27 14-26 17-36 20-36 25-27 26-27 36-37
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24
exact/norm bonds :
6-25 13-14 13-18 14-15 14-26 15-16 16-17 17-18 25-27 26-27 36-37
exact bonds :
10-27 17-36 20-36
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 19-20 19-24
20-21 21-22 22-23 23-24
isolated ring systems :
containing 1 : 7 : 13 : 19 :

G1:C,N

<12/04/2007>

Erich Leese

10/513699

G2:CF2,CF3,CCl2,CCl3,CBr2,CBr3,X

G3:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 26:CLASS 27:CLASS 30:CLASS
31:Atom 34:CLASS 35:Atom 36:CLASS 37:CLASS

L1 STRUCTURE UPLOADED

=> s l1 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 185.40 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 15:35:29 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 685 TO ITERATE

100.0% PROCESSED 685 ITERATIONS

6 ANSWERS

SEARCH TIME: 00.00.01

L2 6 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

185.88

186.10

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FILE COVERS 1907 - 30 Jun 2009 VOL 151 ISS 1

FILE LAST UPDATED: 29 Jun 2009 (20090629/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

<12/04/2007>

Erich Leese

10/513699

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s l2 full
L3          2 L2
```

```
=> d ibib abs hitstr tot
THE ESTIMATED COST FOR THIS REQUEST IS 11.28 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y
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10/513699

L3 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1103625 CAPLUS

DOCUMENT NUMBER: 143:387060

TITLE: Preparation of piperazine or piperidine derivatives as serotonin reuptake inhibitors

INVENTOR(S): Pinney, Kevin G.; Miranda, Maria Graciela; Dorsey, James Michael

PATENT ASSIGNEE(S): Baylor University, USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

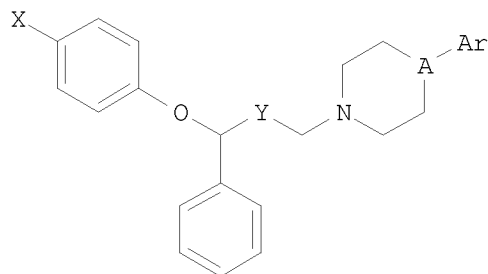
DOCUMENT TYPE: Patent

LANGUAGE: English

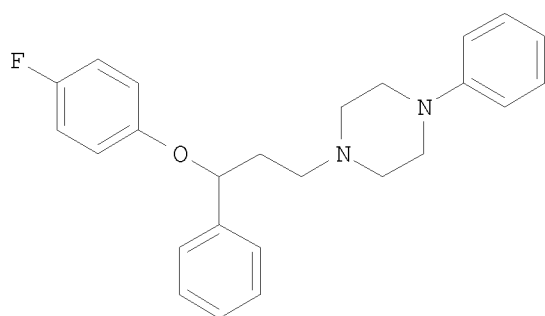
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| ----- | --- | ----- | ----- | ----- |
| WO 2005094896 | A2 | 20051013 | WO 2005-US10356 | 20050328 |
| WO 2005094896 | A3 | 20070503 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, EP, OA | | | |
| EP 1732610 | A2 | 20061220 | EP 2005-730778 | 20050328 |
| R: | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU | | | |
| US 20080132514 | A1 | 20080605 | US 2007-594105 | 20070921 |
| PRIORITY APPLN. INFO.: | | | US 2004-557069P | P 20040326 |
| | | | WO 2005-US10356 | W 20050328 |
| OTHER SOURCE(S): | CASREACT 143:387060; MARPAT 143:387060 | | | |
| GI | | | | |



I



II

AB Title compds. I [X = F or CF₃; Y = (CH₂)_n; n = 0-1; A = N or C; Ar = aryl] and their pharmaceutically acceptable salts, are prepared and disclosed as serotonin reuptake inhibitors. Thus, e.g., II was prepared by reduction of 1-phenyl-3-(4-phenyl-piperazin-1-yl)-propan-1-ol (preparation given) using sodium borohydride followed by coupling with 4-fluorophenol. The ability of I to inhibit [3H]5-HT uptake was evaluated using liquid scintillation spectroscopy and it was revealed that selected compds. of the invention possessed IC₅₀ values in the range of 1.45 up to 9.56 μM. I as serotonin reuptake inhibitors should prove useful in the treatment of depression. Pharmaceutical composition comprising I are disclosed.

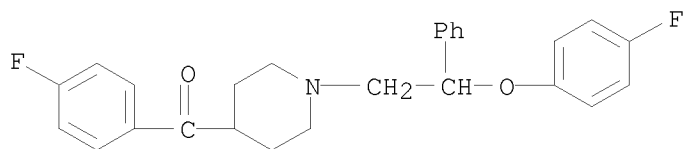
IT 866548-42-7P 866548-43-8P 866548-44-9P
866548-45-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazine or piperidine derivs. as serotonin reuptake inhibitors)

RN 866548-42-7 CAPLUS

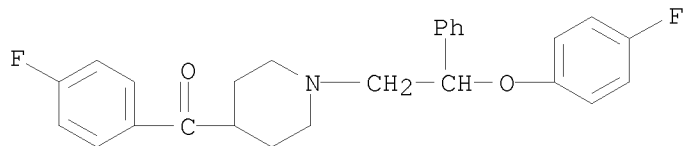
CN Methanone, [1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-piperidinyl] (4-fluorophenyl)- (CA INDEX NAME)



RN 866548-43-8 CAPLUS

10/513699

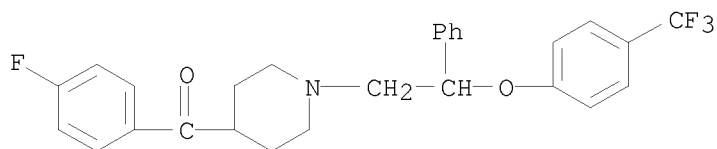
CN Methanone, [1-[2-(4-fluorophenoxy)-2-phenylethyl]-4-piperidinyll (4-fluorophenyl)-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

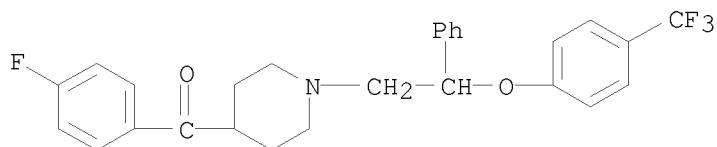
RN 866548-44-9 CAPLUS

CN Methanone, (4-fluorophenyl) [1-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-4-piperidinyll]- (CA INDEX NAME)



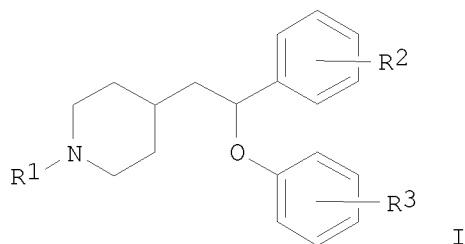
RN 866548-45-0 CAPLUS

CN Methanone, (4-fluorophenyl) [1-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-4-piperidinyll]-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

L3 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:860624 CAPLUS
 DOCUMENT NUMBER: 140:76994
 TITLE: Syntheses and Binding Studies of New
 [(Aryl)(aryloxy)methyl]piperidine Derivatives and
 Related Compounds as Potential Antidepressant Drugs
 with High Affinity for Serotonin (5-HT) and
 Norepinephrine (NE) Transporters
 AUTHOR(S): Orjales, Aurelio; Mosquera, Ramon; Toledo, Antonio;
 Pumar, M. Carmen; Garcia, Neftali; Cortizo, Lourdes;
 Labeaga, Luis; Innerarity, Ana
 CORPORATE SOURCE: Research Department, FAES FARMA S. A., Leioa, Vizcaya,
 48940, Spain
 SOURCE: Journal of Medicinal Chemistry (2003), 46(25),
 5512-5532
 CODEN: JMCMAR; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 140:76994
 GI



AB In a wide search program toward new, efficient, and fast-acting antidepressant drugs, series of new compds. having an (aryl)(aryloxy)methyl moiety linked directly or through a methylene chain to different substituted and unsubstituted cycles (isoquinoline, piperazine, piperidine, tetrahydropyran, or cyclopentane) were prepared. These compds. have been evaluated for their affinities for serotonin (5-HT) transporter (SERT) and 5-HT1A and 5-HT2A receptors. Racemic mixts. of 4-[(aryl)(aryloxy)methyl]piperidines I (R1 = H, Me, MeCO; R2 = H, 3-F, 4-F, 4-Cl, 4-Me; R3 = H, 2-CN, 4-O2N, 4-MeO, 2-Ph, etc.) showed much higher affinity values for SERT than fluoxetine and resulted in lack of affinity for 5-HT1A and 5-HT2A receptors. Some of these racemic mixts. were resolved to their enantiomers and tested for binding to norepinephrine (NE) transporter (NET), dopamine (DA) transporter (DAT), and α 2 receptor. Several of these enantiomers, (-)-I (R1 = R2 = H; R3 = 2-F), (-)-I (R1 = R2 = H; R3 = 3-F), (-)-I (R1 = H; R2 = 3-F; R3 = 2-F), (+)-I (R1 = H; R2 = R3 = 3-F), displayed a dual binding profile with affinities for SERT and NET with $K_i < 25$ nM and a NET/SERT ratio < 10 . (-)-I (R1 = R2 = H; R3 = 3-F) (coded as F-98214-TA for development studies) showed a dual binding profile with very high affinity values for SERT and NET ($K_i = 1.9$ and 13.5 nM, resp.), and further pharmacol. characterization is in progress for its evaluation as an antidepressant.

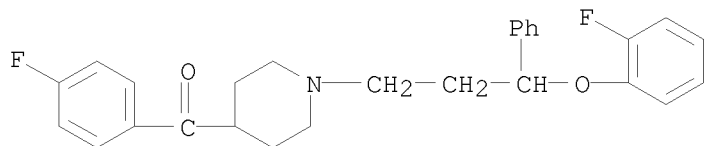
IT 639467-63-3P

10/513699

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation)
(preparation of [(aryl)(aryloxy)alkyl]piperidines and analogs as potential
antidepressants with high affinity for serotonin and norepinephrine
transporters)

RN 639467-63-3 CAPLUS

CN Methanone, [1-[3-(2-fluorophenoxy)-3-phenylpropyl]-4-piperidinyl] (4-
fluorophenyl)-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d his

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FILE 'REGISTRY' ENTERED AT 15:35:04 ON 30 JUN 2009

L1 STRUCTURE UPLOADED

L2 6 S L1 FULL

FILE 'CAPLUS' ENTERED AT 15:35:33 ON 30 JUN 2009

L3 2 S L2 FULL

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

14.78

200.88

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

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-1.64

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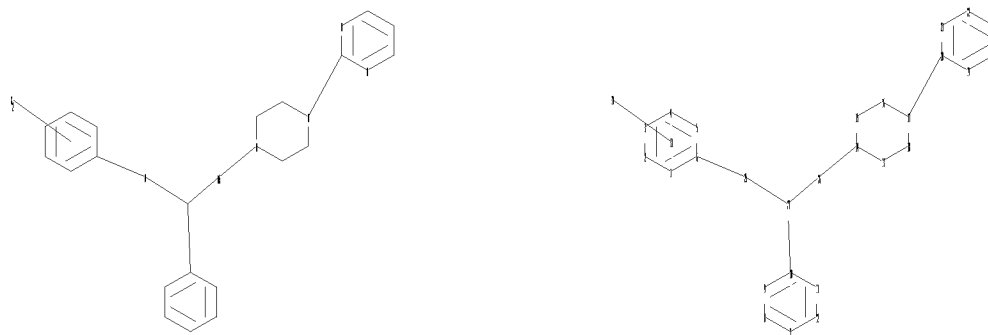
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<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10594105last.str

10/513699



```
chain nodes :
25 26 27 30
ring nodes :
1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24
chain bonds :
6-25 10-27 14-26 17-20 25-27 26-27
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18
14-15 15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24
exact/norm bonds :
6-25 13-14 13-18 14-15 14-26 15-16 16-17 17-18 17-20 25-27 26-27
exact bonds :
10-27
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 19-20 19-24
20-21 21-22 22-23 23-24
isolated ring systems :
containing 1 : 7 : 13 : 19 :
```

G1:C,N

<12/04/2007>

Erich Leese

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G2:CF2,CF3,CCl2,CCl3,CBr2,CBr3,X

G3:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 26:CLASS 27:CLASS 30:CLASS
31:Atom

L4 STRUCTURE UPLOADED

=> d l4

L4 HAS NO ANSWERS

L4 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l4 full

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FULL SEARCH INITIATED 15:39:54 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 283 TO ITERATE

100.0% PROCESSED 283 ITERATIONS

6 ANSWERS

SEARCH TIME: 00.00.01

L5 6 SEA SSS FUL L4

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

185.88

386.76

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

0.00

-1.64

FILE 'CAPLUS' ENTERED AT 15:39:57 ON 30 JUN 2009

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FILE LAST UPDATED: 29 Jun 2009 (20090629/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

CPlus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

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<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 15 full
L6 7 L5

=> d ibib abs hitstr tot
THE ESTIMATED COST FOR THIS REQUEST IS 39.48 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L6 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:412461 CAPLUS

DOCUMENT NUMBER: 151:496

TITLE: QSAR study of the 5-HT1A receptor affinities of arylpiperazines using a genetic algorithm-artificial neural network model

AUTHOR(S): Habibi-Yangjeh, Aziz

CORPORATE SOURCE: Department of Chemistry, Faculty of Science, University of Mohaghegh Ardabili, Ardabil, Iran

SOURCE: Monatshefte fuer Chemie (2009), 140(5), 523-530

CODEN: MOCMB7; ISSN: 0026-9247

PUBLISHER: SpringerWienNewYork

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Genetic algorithm-multiparameter linear regression (GA-MLR) and genetic algorithm-artificial neural network (GA-ANN) models have been used for prediction of the 5-HT1A receptor affinities (pK_i) of 66 arylpiperazines. A large number of theor. descriptors were calculated for each compound. The genetic

algorithm (GA) was used for selection of the variables that resulted in the best fit to the MLR and ANN models. The models were generated using seven descriptors as variables. For evaluation of the predictive power of the models, pK_i values of 13 compds. in the prediction set were calculated. Mean percentage deviation (MPD) for the GA-MLR and GA-ANN models were 0.344 and 0.065, resp. Comparison of the results obtained by use of the models reveals the GA-ANN model is superior to the GA-MLR model.

Graphical abstract

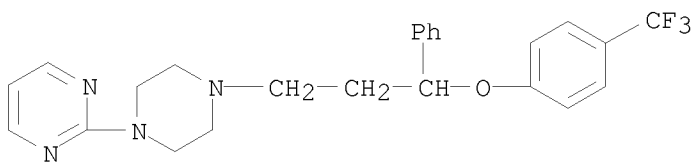
IT 328248-23-3

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(QSAR study of 5-HT1A receptor affinities of arylpiperazines using a genetic algorithm-artificial neural network model)

RN 328248-23-3 CAPLUS

CN Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1-piperazinyl]- (CA INDEX NAME)



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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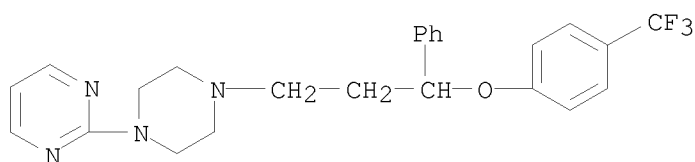
L6 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:803320 CAPLUS
DOCUMENT NUMBER: 149:215113
TITLE: Two-dimensional QSAR studies on arylpiperazines as
high-affinity 5-HT1A receptor ligands
AUTHOR(S): Weber, Karen C.; Honorio, Kathia M.; Andricopulo,
Adriano D.; Da Silva, Alberico B. F.
CORPORATE SOURCE: Instituto de Quimica de Sao Carlos, Universidade de
Sao Paulo, Sao Carlos, 13560-970, Brazil
SOURCE: Medicinal Chemistry (2008), 4(4), 328-335
CODEN: MCEHAJ; ISSN: 1573-4064
PUBLISHER: Bentham Science Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 5-HT1A receptor plays an important role in the delayed onset of
antidepressant action of a class of selective serotonin reuptake
inhibitors. Moreover, 5-HT1A receptor levels have been shown to be
altered in patients suffering from major depression. In this work,
hologram quant. structure-activity relationship (HQSAR) studies were
performed on a series of arylpiperazine compds. presenting affinity to the
5-HT1A receptor. The models were constructed with a training set of 70
compds. The most significant HQSAR model ($q^2 = 0.81$, $r^2 = 0.96$) was
generated using atoms, bonds, connections, chirality, and donor and
acceptor as fragment distinction, with fragment size of 6-9. Predictions
for an external test set containing 20 compds. are in good agreement with
exptl. results showing the robustness of the model. Addnl., useful
information can be obtained from the 2D contribution maps.

IT 328248-23-3
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(two-dimensional QSAR studies on arylpiperazines as high-affinity
5-HT1A receptor ligands)

RN 328248-23-3 CAPLUS

CN Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1-
piperazinyl]- (CA INDEX NAME)



REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:767635 CAPLUS

DOCUMENT NUMBER: 149:324283

TITLE: Quantitative structure-affinity relationship of 5-HT1A receptor ligands by the classification tree method

AUTHOR(S): Kuz'min, V. E.; Polischuk, P. G.; Artemenko, A. G.; Makan, S. Yu.; Andronati, S. A.

CORPORATE SOURCE: A.V. Bogatsky Physical-Chemical Institute, National Academy of Sciences of Ukraine, Odessa, Ukraine

SOURCE: SAR and QSAR in Environmental Research (2008), 19(3-4), 213-244

CODEN: SQERED; ISSN: 1062-936X

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The influence of mol. structure of 346 ligands on their affinity for 5-HT1A receptors was investigated. It was shown that the effectiveness of the proposed novel approach for interpretation of decision tree models compared favorably with the PLS method. In the context of the proposed approach, mol. fragments and their values of the relative influence on the affinity for 5-HT1A receptors were defined.

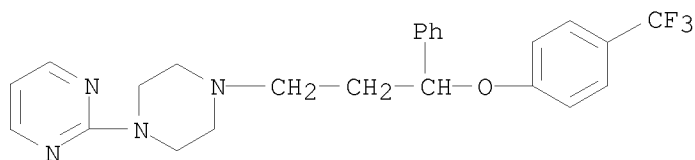
IT 328248-23-3

RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study)

(quant. structure-affinity relationship of 5-HT1A receptor ligands by the classification tree method)

RN 328248-23-3 CAPLUS

CN Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1-piperazinyl]- (CA INDEX NAME)



REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:232006 CAPLUS

DOCUMENT NUMBER: 148:440268

TITLE: A chemometric study of the 5-HT_{1A} receptor affinities presented by arylpiperazine compounds

AUTHOR(S): Weber, Karen C.; da Silva, Alberico B. F.

CORPORATE SOURCE: Instituto de Quimica de Sao Carlos, Universidade de Sao Paulo, Sao Carlos, 13566-590, Brazil

SOURCE: European Journal of Medicinal Chemistry (2008), 43(2), 364-372

CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Elsevier Masson SAS

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Arylpiperazine compds. are promising 5-HT_{1A} receptor ligands that can contribute for accelerating the onset of therapeutic effect of selective serotonin reuptake inhibitors. In the present work, the chemometric methods HCA, PCA, KNN, SIMCA and PLS were employed in order to obtain SAR and QSAR models relating the structures of arylpiperazine compds. to their 5-HT_{1A} receptor affinities. A training set of 52 compds. was used to construct the models and the best ones were obtained with nine topol. descriptors. The classification and regression models were externally validated by means of predictions for a test set of 14 compds. and have presented good quality, as verified by the correctness of classifications, in the case of pattern recognition studies, and by the high correlation coeffs. ($q^2 = 0.76$, $r^2 = 0.83$) and small prediction errors for the PLS regression. Since the results are in good agreement with previous SAR studies, we can suggest that these findings can help in the search for 5-HT_{1A} receptor ligands that are able to improve antidepressant treatment.

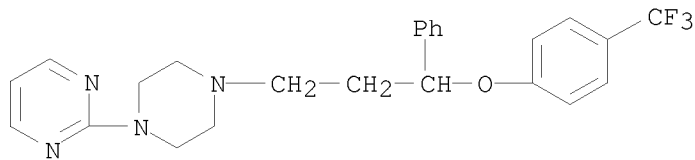
IT 328248-23-3

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chemometric study of 5-HT_{1A} receptor affinities presented by arylpiperazine compds. as possible antidepressants)

RN 328248-23-3 CAPLUS

CN Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1-piperazinyl]- (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/513699

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:847178 CAPLUS

DOCUMENT NUMBER: 145:410017

TITLE: Synthesis of benzenepropanamine analogues as non-detergent spermicides with antitrichomonas and anticandida activities

AUTHOR(S): Kumar, S. T. V. S. Kiran; Sharma, Vishnu Lal; Kumar, Manish; Shukla, Praveen Kumar; Tiwari, Pratibha; Jain, Rajeev Kumar; Maikhuri, Jagdamba Prasad; Singh, Divya; Gupta, Gopal; Singh, Man Mohan

CORPORATE SOURCE: Division of Medicinal and Process Chemistry, Central Drug Research Institute, Lucknow, 226001, India

SOURCE: Bioorganic & Medicinal Chemistry (2006), 14(19), 6593-6600

CODEN: BMECEP; ISSN: 0968-0896

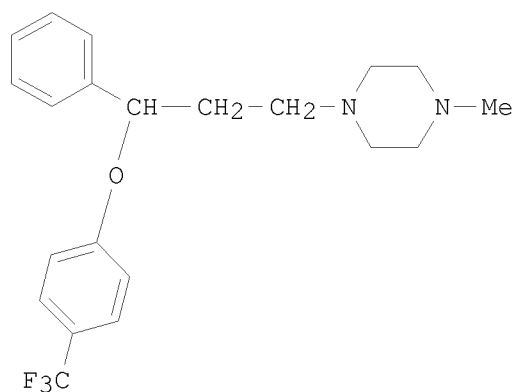
PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 145:410017

GI



I

AB Fifteen analogs of benzenepropanamine were synthesized and evaluated for their spermicidal as well as microbicidal activities against *Trichomonas vaginalis* and *Candida* spp. Several compds. showed appreciable dual activities. Compound I exhibited good spermicidal (MEC = 0.1%) along with substantial anticandidal (MIC = 0.05%) activities, while compds. 3 and 6 showed significant microbicidal activities with moderate spermicidal effect. The SAR of these structures is being discussed here in this communication. It is concluded that suitable structural modifications in this class of compds. at 3-amino position may lead to a potent spermicide with associated microbicidal activity.

IT 911811-11-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

<12/04/2007>

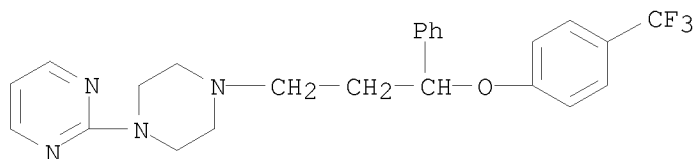
Erich Leese

10/513699

(benzenepropanamine analogs as non-detergent spermicides with
antitrichomonas and anticandida activities)

RN 911811-11-5 CAPLUS

CN Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1-
piperazinyl]-, hydrochloride (1:2) (CA INDEX NAME)



● 2 HCl

REFERENCE COUNT:

34

THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/513699

L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1103625 CAPLUS

DOCUMENT NUMBER: 143:387060

TITLE: Preparation of piperazine or piperidine derivatives as serotonin reuptake inhibitors

INVENTOR(S): Pinney, Kevin G.; Miranda, Maria Graciela; Dorsey, James Michael

PATENT ASSIGNEE(S): Baylor University, USA

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

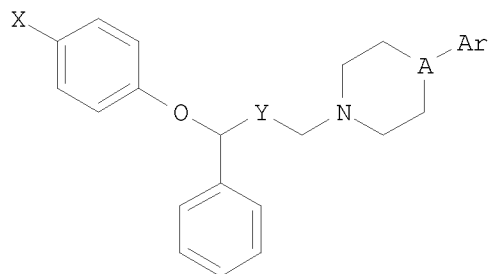
DOCUMENT TYPE: Patent

LANGUAGE: English

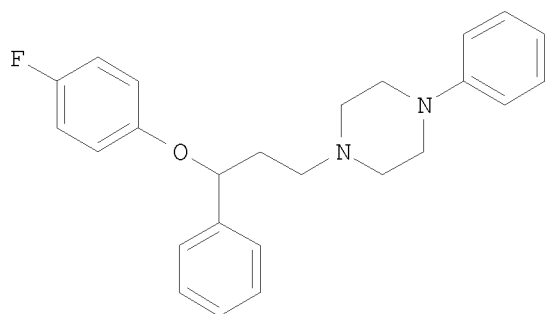
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| ----- | --- | ----- | ----- | ----- |
| WO 2005094896 | A2 | 20051013 | WO 2005-US10356 | 20050328 |
| WO 2005094896 | A3 | 20070503 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, EP, OA | | | |
| EP 1732610 | A2 | 20061220 | EP 2005-730778 | 20050328 |
| R: | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU | | | |
| US 20080132514 | A1 | 20080605 | US 2007-594105 | 20070921 |
| PRIORITY APPLN. INFO.: | | | US 2004-557069P | P 20040326 |
| | | | WO 2005-US10356 | W 20050328 |
| OTHER SOURCE(S): | CASREACT 143:387060; MARPAT 143:387060 | | | |
| GI | | | | |



I



II

AB Title compds. I [X = F or CF₃; Y = (CH₂)_n; n = 0-1; A = N or C; Ar = aryl] and their pharmaceutically acceptable salts, are prepared and disclosed as serotonin reuptake inhibitors. Thus, e.g., II was prepared by reduction of 1-phenyl-3-(4-phenyl-piperazin-1-yl)-propan-1-ol (preparation given) using sodium borohydride followed by coupling with 4-fluorophenol. The ability of I to inhibit [3H]5-HT uptake was evaluated using liquid scintillation spectroscopy and it was revealed that selected compds. of the invention possessed IC₅₀ values in the range of 1.45 up to 9.56 μM. I as serotonin reuptake inhibitors should prove useful in the treatment of depression. Pharmaceutical composition comprising I are disclosed.

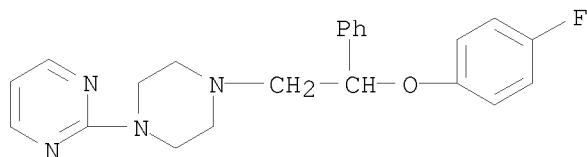
IT 866548-32-5P 866548-33-6P 866548-34-7P
866548-35-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperazine or piperidine derivs. as serotonin reuptake inhibitors)

RN 866548-32-5 CAPLUS

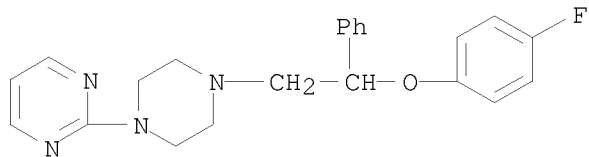
CN Pyrimidine, 2-[4-[2-(4-fluorophenoxy)-2-phenylethyl]-1-piperazinyl]- (CA INDEX NAME)



10/513699

RN 866548-33-6 CAPLUS

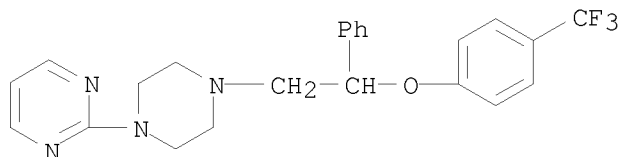
CN Pyrimidine, 2-[4-[2-(4-fluorophenoxy)-2-phenylethyl]-1-piperazinyl]-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

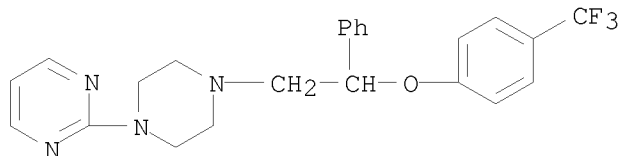
RN 866548-34-7 CAPLUS

CN Pyrimidine, 2-[4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-1-piperazinyl]- (CA INDEX NAME)



RN 866548-35-8 CAPLUS

CN Pyrimidine, 2-[4-[2-phenyl-2-[4-(trifluoromethyl)phenoxy]ethyl]-1-piperazinyl]-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:76 CAPLUS

DOCUMENT NUMBER: 134:207795

TITLE: New 1-aryl-3-(4-arylpiperazin-1-yl)propane derivatives, with dual action at 5-HT_{1A} serotonin receptors and serotonin transporter, as a new class of antidepressants

AUTHOR(S): Martinez-Esparza, Javier; Oficialdegui, Ana-M.; Perez-Silanes, Silvia; Heras, Begona; Orus, Lara; Palop, Juan-A.; Lasheras, Berta; Roca, Joan; Mourelle, Marisa; Bosch, Ana; Del Castillo, Juan-C.; Tordera, Rosa; Del Rio, Joaquin; Monge, Antonio

CORPORATE SOURCE: Departments of Medicinal Chemistry and Pharmacology
Centro de Investigacion en Farmacobiologia Aplicada (CIFA), Universidad de Navarra, Pamplona, 31080, Spain

SOURCE: Journal of Medicinal Chemistry (2001), 44(3), 418-428
CODEN: JMCMAR; ISSN: 0022-2623

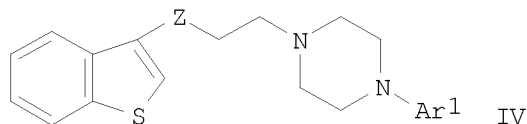
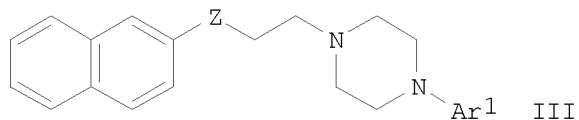
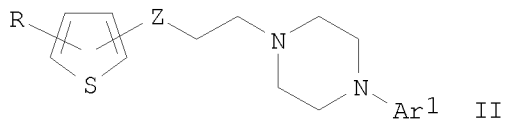
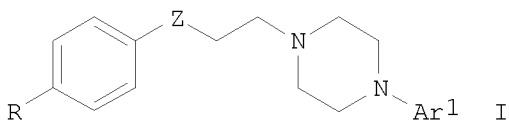
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:207795

GI



AB In a search toward new and efficient antidepressants, 1-aryl-3-(4-arylpiperazin-1-yl)propane derivs. I (R = H, Ph, MeO, NO₂, Z = CO, CHOH, CHOR₁, R₁ = 4-F₃CC₆H₄, 4-MeOC₆H₄, 3,4-OCH₃OC₆H₃, Ar₁ =

2-MeOC₆H₄, 4-ClC₆H₄, 2-pyridyl, etc.), II (R = H, 2,5-Me₂, 5-Me, 5-NO₂, Z = CO, CNOH, CHOH, CHOR₁, R₁ = 4-F₃CC₆H₄, 3,4-OCH₂OC₆H₃, 1-ClO₂H₇, position = 2, 3), III and IV (Ar₁ = 2-MeOC₆H₄, 4-ClC₆H₄, 2-HOC₆H₄, Z = CO, CHOH) were designed, synthesized, and evaluated for 5-HT reuptake inhibition and 5-HT_{1A} receptor antagonism. This dual pharmacol. profile should lead, in principle, to a rapid and pronounced enhancement in serotonergic neurotransmission and consequently to a more efficacious treatment of depression. The design was based on coupling structural moieties related to inhibition of serotonin reuptake, such as γ -phenoxypropylamines, to arylpiperazines, typical 5-HT_{1A} ligands. In binding studies, several compds. showed affinity at the 5-HT transporter and 5-HT_{1A} receptors. Antidepressant-like activity was initially assayed in the forced swimming test with those compds. with K_i < 200 nM in both binding studies. Functional characterization was performed by measuring the intrinsic effect on rectal temperature in mice and also the antagonism to 8-OH-DPAT-induced hypothermia. The most efficacious compds. II (R = H, Z = CHO-1-ClO₂H₇, position = 3, Ar₁ = 2-MeOC₆H₄) (V), II[R = 5-Me, Z = (E)-CNOH, position = 2, Ar₁ = 2-MeOC₆H₄] and IV (Z = CO, CHOH, Ar₁ = 2-MeOC₆H₄) (VI) were further explored for their ability to antagonize 8-OH-DPAT-induced inhibition of forskolin-stimulated cAMP formation in a cell line expressing the 5-HT_{1A} receptor. Furthermore, the antidepressant-like properties of V and VI, which exhibited 5-HT_{1A} receptor antagonistic property in the latter study, were also evaluated in the learned helplessness test in rats. Among these three compds., VI (Z = CHOH) (1-benzo[b]thiophene-3-yl)-3-[4-(2-methoxyphenyl)-1-ylpropan-1-ol] showed the higher affinity at both the 5-HT transporter and 5-HT_{1A} receptors (K_i = 20 nM in both cases) and was also active in the other pharmacol. tests. Such a pharmacol. profile could lead to a new class of antidepressants with a dual mechanism of action and a faster onset of action.

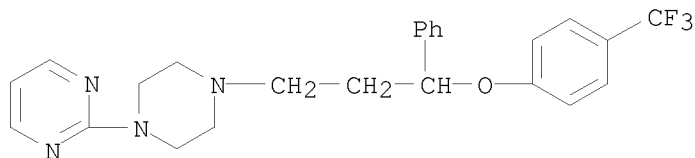
IT 328248-23-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation, 5-HT_{1A} serotonin receptor antagonist and serotonin transporter activity, and structure-activity relationship of aryl(arylpiperazinyl)propanes)

RN 328248-23-3 CAPLUS

CN Pyrimidine, 2-[4-[3-phenyl-3-[4-(trifluoromethyl)phenoxy]propyl]-1-piperazinyl]- (CA INDEX NAME)



REFERENCE COUNT:

54

THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/513699

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FILE 'REGISTRY' ENTERED AT 15:35:04 ON 30 JUN 2009

L1 STRUCTURE UPLOADED

L2 6 S L1 FULL

FILE 'CAPLUS' ENTERED AT 15:35:33 ON 30 JUN 2009

L3 2 S L2 FULL

FILE 'REGISTRY' ENTERED AT 15:39:28 ON 30 JUN 2009

L4 STRUCTURE UPLOADED

L5 6 S L4 FULL

FILE 'CAPLUS' ENTERED AT 15:39:57 ON 30 JUN 2009

L6 7 S L5 FULL

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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

39.98

426.74

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-5.74

-7.38

STN INTERNATIONAL LOGOFF AT 15:40:14 ON 30 JUN 2009